

REMARKS

Claims 1, 3 to 11, 13 to 20, and 22 to 30 are pending in the application, of which claims 1, 9, 11, 18, 20, 27 and 29 are the independent claims. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, the specification was objected to for titling the abstract with the title of the invention, rather than with the word "Abstract". As shown above, Applicants have changed the title of the abstract to "Abstract". In view of this amendment, withdrawal of the objection to the specification is respectfully requested.

Claims 1 to 30 were rejected under 35 U.S.C. §102(a) over Pedersen, "A Framework for Interactive Texturing on Curved Surfaces" (hereinafter "the Pedersen reference"). As shown above, Applicants have amended the claims to define the invention with even greater clarity. In view of these clarifications, reconsideration and withdrawal of the art rejection are respectfully requested.

Amended independent claim 1 is a method of trimming a parametric surface, which includes producing a trimming texture by applying a trimming curve to a mesh and applying the trimming texture based on a trimming curve to the parametric surface. The trimming texture is applied by texture mapping the texture onto the parametric surface to produce trimmed and untrimmed portions. Only the untrimmed portion is rendered.

The applied art is not understood to disclose or to suggest the foregoing features, particularly with respect to texture mapping the trimming texture on the parametric surface to produce trimmed and untrimmed portions and rendering only the untrimmed portion.

More specifically, the Pedersen reference is directed to a conventional method of texture mapping, which includes applying a curve to a first surface, copying a region of texture from the first surface (called a "patchino"), and applying the patchino to a second surface. The second surface is combined (and presumably rendered) with the patchino.

This is described in section 4.2 which states the following:

In our system, any number of texture patches can exist on the surface at any time, and the user is free to translate, rotate, scale and deform these by clicking on them. Motivated by the image compositing paradigm, the patches reside on different layers and can be lowered or raised similar to the way windows can be manipulated on graphically oriented systems.

Thus, the patchinos in the Pedersen reference are not use for trimming, but rather for creating composite images, as described in section 4.2 of the Pedersen reference.

In this regard, it was said on page 4 of the Office Action (referring to claim 3) that page 302 of the Pedersen reference shows

drawing a plurality of pixels only in a solid portion of the image that is not a trimmed portion.

Applicants respectfully disagree with this statement. While Figures 9 through 13 of the Pedersen reference do show dark patchinos, there is no indication whatsoever that only the untrimmed portions of the depicted meshes are rendered. In fact, the description associated with Figure 9 (see page 302) seems to indicate just the opposite, i.e., that the patchinos are on the surface of the mesh (and therefore get rendered along with the mesh).

For at least the foregoing reasons, Applicants respectfully submit that claim 1 is patentable over the Pedersen reference.

Amended independent claim 11 is an article of manufacture claim that roughly corresponds to claim 1; and amended independent claim 20 is an apparatus claim that

roughly corresponds to claim 1. These claims are also believed to be patentable for at least the reasons set forth above with respect to claim 1.

Amended independent claim 9 defines a method of trimming a parametric surface, which includes producing a trimming texture by applying a trimming curve to a mesh, mapping the trimming texture on the parametric surface to create a trimmed section and a rendered section, the trimming texture being mapped by texture mapping, and rendering only the rendered section of the parametric surface based on an application of the trimming texture to a plurality of polygons approximating the parametric surface.

As explained above with respect to claim 1, the Pedersen reference is not understood to disclose or to suggest mapping a trimming texture on a parametric surface to create a trimmed section and a rendered section and rendering only the rendered section of the parametric surface. Accordingly, claim 9 is also believed to be patentable over the art.

Amended independent claim 18 is an article of manufacture claim that roughly corresponds to claim 9; and amended independent claim 27 is an apparatus claim that roughly corresponds to claim 9. These claims are also believed to be patentable for at least the reasons set forth above with respect to claim 9.

Amended independent claim 29 defines a method for use in rendering images from data for an original three-dimensional model. The method includes obtaining a trimming texture by applying a trimming curve to a mesh that defines at least a portion of the three-dimensional model, applying the trimming texture to the three-dimensional model, the trimming texture being applied by texture mapping the trimming texture onto the

parametric surface to produce trimmed and untrimmed portions, and rendering an image using only the untrimmed portion.

The Pedersen reference does not describe both applying a trimming texture to a three-dimensional model by texture mapping the trimming texture onto a parametric surface to produce trimmed and untrimmed portions, and rendering only the untrimmed portion. Accordingly, claim 29 is believed to be patentable over the art.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney can be reached at the address shown below. Telephone calls regarding this application should be directed to the undersigned at 617-521-7896.